Pavement Maintenance Annual Report - 2008

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Pavement Maintenance Utility Fee Annual Report (2008)

Purpose for an Annual Report

In accordance with Ordinance No. 08-1007, which established City Code 13.30, Transportation Utility Fees (TUF):

> *"City staff shall prepare an annual report that presents how revenues were spent."*

For consistency and to better align the name of the fee with the purpose, throughout the remainder of this report the TUF will be referred to as a Pavement Maintenance Utility Fee (PMUF).

Background

Oregon City has 136 miles of surface streets with a reconstruction value of approximately $1 million per mile. Transportation funding is one of the most challenging issues facing public agencies. In the past, Oregon City has used State gas taxes and road transfer revenues to provide limited maintenance of the City's street system. Historically, the City's pavement maintenance liability far exceeded the amount available for use from these revenue sources.

Total street section reconstruction
Beavercreek Road

In 2007, the City Commission asked the Public Works Department and a Transportation Funding Study Citizens Committee to identify and establish a sustainable funding source for street maintenance. The Committee concluded that a PMUF is the most equitable and stable source for street funding.

They recommended an annual revenue goal of $1.5 million to at least maintain the City's average Pavement Condition Index (PCI)[1]. The City Commission decided that this target be gradually phased in over a 5-year period to allow customers time to incrementally budget for the fee. With this phased in fee scenario, first year fees could provide $600,000 and jump-start the City's pavement maintenance program.

On May 21, 2008, the City Commission approved Ordinance No. 08-1007 establishing the PMUF. The purpose of the fee was to provide cost recovery for maintaining and operating Oregon City's transportation system. The fee was based on actual cost projections from the StreetSaver Pavement Management software (model). Like those in many other Oregon communities, the fee is also based on nationally recognized information developed by the Institute of Traffic Engineers that estimates the average number of vehicle trips generated by a property based on how that property is used.

A Billable Unit Rate

The residential monthly unit rate, applied to single family residential land uses, was established at $1.15 per adjusted average daily trip. The monthly non-residential unit rate, applied to all other land uses, was established at $0.189 per adjusted average daily trip. In an effort to ease the impact of this new fee a phased in fee schedule was established. The schedule of the phased in fee (with inflation included) follows:

Table 1

Time Period	Residential Monthly Fee	Residential Rate per Trip	Non-Residential Rate per Trip
July 1, 2008 through June 30, 2009	$4.50	$0.470	$0.077
July 1, 2009 through June 30, 2010	$6.00	$0.627	$0.103
July 1, 2010 through June 30, 2011	$7.50	$0.784	$0.129
July 1, 2011 through June 30, 2012	$9.00	$0.940	$0.154
July 1, 2012 through June 30, 2013	**$11.20**	**$1.172**	**$0.192**

[1] Pavement Condition Index (PCI), developed by the United States Army Corps of Engineers, is based on a visual survey of the pavement and a numerical value between 0 and 100 to define the condition with 100 representing excellent pavement.

Actual revenues collected during the first eight months of fee implementation slightly exceeded $356,000 which puts the City on track for the first year revenue projection of $600,000.

Oregon City's Transportation System

Within the city limits, the transportation system is comprised of multiple jurisdictional responsibilities. The following table provides a history and summary of the mileage obligation of each jurisdiction:

Table 2

Year	City	County	Private	ODOT	Grand Total
2006 Miles (12/2006)	132.7	10	8	11.4	**162.10**
2007 Miles (12/2007)	135.03	11.94	9.93	12.48	**169.38**
2008 Miles (12/2008)	136.16	13.46	9.54	12.57	**171.73**

In June 2007, the City completed a pavement condition survey, reviewing the condition of portions of all Oregon City streets. Historically the City has completed this evaluation every three years. In 2007, the overall city-wide average pavement condition index (PCI) was rated as a 68. This rating was based on visual inspections and calculated using StreetSaver. The modeling component of StreetSaver was run, taking into consideration pavement deterioration over time (since 2007) and pavement maintenance treatments completed in 2008. The result was a theoretical 2009 PCI. The StreetSaver model calculated the City's theoretical 2009 city-wide average PCI to be 65. This reduction in PCI is an indication that the deterioration of Oregon City's pavement system continues to exceed the rate of repair.

2008 PMUF Accomplishments

Adoption and Implementation of a City-Wide Pavement Maintenance Utility Fee

Adoption of the PMUF was the first step in implementing a utility fee. Because the adopted rate structure provides for a variety of parcel types, implementation of the fee was challenging. The rates for single family residences were a straight-forward unit rate per each parcel. Multi-family housing rates were a similar calculation but each multi-family complex

required an audit of the number of units. Also, the monthly fee for schools is computed based on the number of students which varies based on enrollment.

All other developed parcels required evaluation of the land use to establish the estimated daily trips. Then the square footages of buildings were calculated and audited so that they could be included in the unit rate calculation for individual non-residential monthly fees. There are approximately 535 non-residential customers.

The final step in collecting the fee was to add the fee to the City's monthly utility bill and process any appeals, adjustments, and waivers that were submitted to the City for consideration.

Adoption of a New Construction Standard

The City's Public Works Department determined through review of industry practices that pavement thickness directly impacts the life of a street section. Arterial and collector street classifications are designed based on wheel loads, projected traffic counts, and bearing capacity of the existing soil. Generally, arterial and collector streets are professionally designed based on the conditions.

Cold plane pavement removal (milling)

However, residential streets are typically constructed using a standard road section detail drawing. When the City first adopted its street section detail, the standard asphalt thickness for a residential street was 3-inches with a foundation of 8-inches of compacted gravel. In addition, our experience with Oregon City streets built under County standards, or before the City enforced street section standards, is that the pavement is typically less than 3-inches thick and often placed without a gravel foundation.

As recommended by the Transportation Funding Study Citizens Committee and the City Commission, the City's residential street section detail is now required to be 4-inches of asphalt thickness with a foundation of 10-inches of compacted gravel.

StreetSaver Pavement Management System

Documentation of pavement history including inspections, maintenance, and cost scenarios are examples of the kinds of information recorded in the City's StreetSaver software (database). Each street is split into one or more segments and tracked with segment history. Oregon City has been collecting inspection history since 1983. In 2008, the maintenance work completed for the year was added to StreetSaver; this was something not previously documented.

Preventive Maintenance

Preventive pavement maintenance treatments are surface treatments that are applied early in the life of the roadway to prolong the life of the surface. The objective of preventive maintenance is to keep surface water from seeping through the small cracks into the underlying base rock or native soil. Crack sealing, slurry sealing, and chip sealing are the traditional types of preventive maintenance used in our region.

With the implementation of the PMUF, the City reacted almost immediately with the award of a large slurry seal contract. Specific project locations and segment details are included as Appendix A. A PMUF project map for 2008 is attached as Exhibit A.

During September 2008, the slurry seal program included 52 individual street segments which were scattered throughout Oregon City. In total, 6.8 miles of streets were surfaced as part of this program. In-house crews prepared the streets in the spring and early summer months. They cleaned and sealed all surface cracks prior to the slurry seal application.

Crack Seal - Injection of hot tar or asphalt into cracks and paving seams.
Slurry Seal - Very thin layer of liquid asphalt and sand used to seal street surfaces. (Cost is typically less than $2 per square yard).
Chip Seal - A thin layer of hot asphalt is applied to the street surface then small gravel is applied and leveled and compacted into place.
Overlay - A new layer of asphalt or concrete, which adds structural strength and seals the surface. Often grinding or inlays are needed to match pavement grades or remove severely distressed pavement. (Cost ranges from $6 to $26 per square yard, depending on the overlay thickness and preparation).
Reconstruction - The most expensive street treatment, reconstruction entails extensive street repair work that involves excavating the existing street and rebuilding gravel road base and surface layers. (Cost ranges from $35 to $55 per square yard depending on the pavement section and preparation).

During August 2008, Oregon City Public Works (OCPW) worked with Clackamas County to use their equipment and staff to apply a chip seal on Meyers Road. This project took place over a two-day period and was preceded by several days of preparation conducted by in-house staff. OCPW first repaired the road base in several areas and sealed all the major cracks. The Clackamas County chip seal crew then applied the chip seal. OCPW also worked with the community and Clackamas County to develop a detailed traffic plan to reduce the impact to the traveling public and residents during construction. The neighborhood outreach effort included door hangers, letters to residents, and electronic display reader boards informing the public of the project.

In-House Pavement Maintenance and Street Reconstruction

In-house pavement maintenance is work that OCPW performs using City equipment. In the summer months, staffing is augmented by seasonal workers. Work can be anything from pothole repair or spot repair of small pavement failures to a larger scale version of pavement failure using the same in-house resources. The in-house street maintenance work is one of many work tasks performed by Street Division staff. Chart 1 represents a cross section of a few of the major work categories performed throughout the summer paving season.

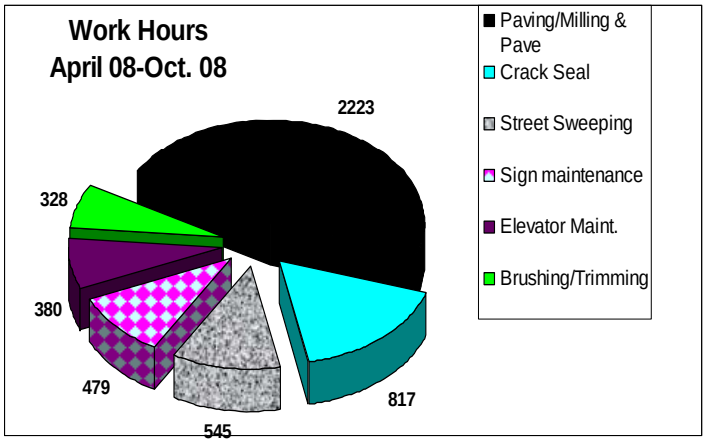

Chart 1

All in-house pavement maintenance projects focused on repairing the base of the road, adding additional strength and repairing failing pavement sections. During the summer of 2008, a total of 10 larger scale individual projects were completed applying a total of over 1000 tons of asphalt, a record for the City's in-house crew. OCPW used a local vendor for hot mix asphalt and with the price of oil at an all time high, asphalt pricing was 30% higher than previous years. During the summer, unit price costs for hot mix asphalt reached $73 per ton for most of the paving season. Table 3 includes a summary of the larger scale in-house pavement repairs.

Table 3

2008 In-House Paving & Rehab Projects Asphalt Cost Only				
Street	**TONS (Asphalt)**	**Treatment**	**Unit Cost**	**Project Cost**
Warner Milne Rd.	257	Mill & Pave	$73.00	$18,761.00
15th Street	52	Mill & Pave	$73.00	$3,796.00
7th Street	57	Mill & Pave	$73.00	$4,161.00
Division St.	69	Mill & Pave	$73.00	$5,037.00
South End Rd.	125	Mill & Pave	$73.00	$9,125.00
Linn Ave.	42	Mill & Pave	$73.00	$3,066.00
Holmes Ln.	263	Base Reconstruction	$73.00	$19,199.00
Front Ave.	48	Mill & Pave	$73.00	$3,504.00
Meyers Rd.	19	Mill & Pave	$73.00	$1,387.00
Van Buren	45	Mill & Pave	$73.00	$3,285.00
	1009			**$71,321.00**

Contract Street Reconstruction

Contract street reconstruction is all the other street reconstruction work that is completed by contracting with private contractors through project contracts. Typically, this work includes asphalt overlays, cold plane pavement removal (milling) and an asphalt overlay, structural dig-outs and repairs, or a complete reconstruction of the entire street section. Costs for this kind of work vary widely based on the type of repairs, classification of the street, volume of traffic, anticipated vehicle loading, and complexity of temporary traffic control. Generally these kinds of projects include engineering, project administration, detailed plans, and contract specifications.

2008 included one small overlay project. The project was located on Holmes Lane between Linn Avenue and McCarver Avenue. The cost of the project was $16,000.

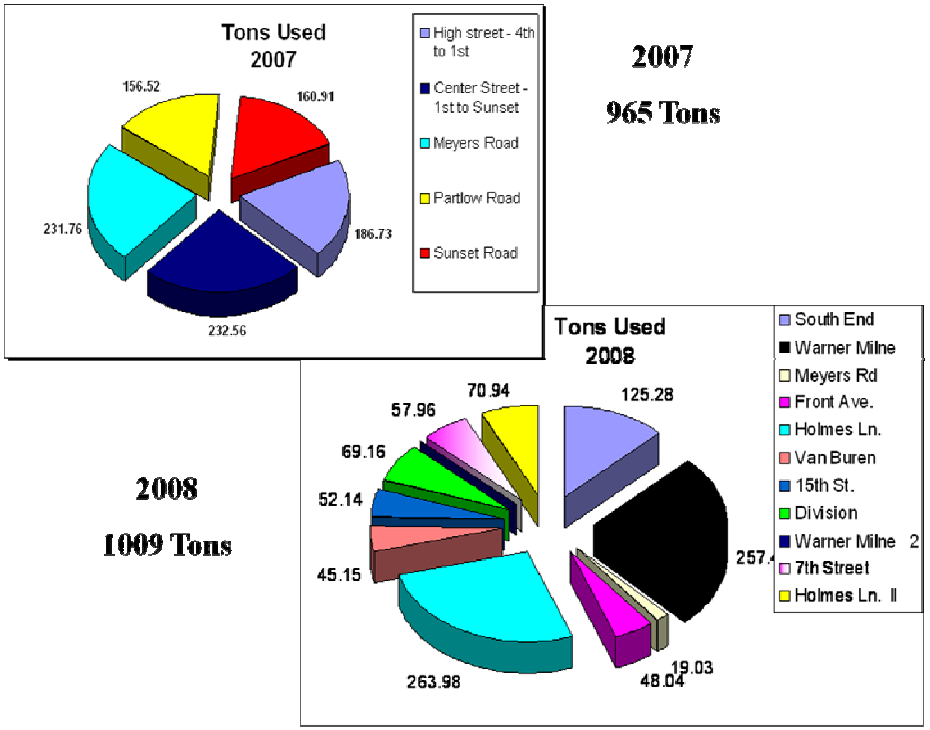

Chart 2

Future PMUF Work

So far in 2009, the City has executed a personal services agreement with Wallis Engineering to develop the City's 2009 Oregon City Roadway Reconstruction Projects. The intent is to develop a bid package that includes $600,000 worth of street repairs. Concept level estimates produced by City staff include the projects listed in Table 4 as potential work to be completed using PMUF funding.

Table 4

Street	Beginning	Ending	Length (ft)	Width (ft)	Area (sy)	Treatment Unit Cost ($/sy)	Concept Estimate Project Cost (includes 20% contingency)	Treatment Desc. General
15th St	Washington	East of John Adams	300	40	1333	$15	$24,000	2" mill and 3" paveback; curb to curb, coordinate with utilities
15th St	Jackson intersection	100' each way	275	34	1039	$25	$31,167	2" mill and 3" paveback; curb to curb
3rd Ave	Ganong	Miller	550	22	1344	$7	$11,293	2" overlay
Blue Ridge Dr	Shenandoah	Shenandoah	1600	34	6044	$16	$116,053	AC removal, finish grading, 4" AC paveback
Center St	Sunset	S 1st St	1700	24	4533	$12	$65,280	3" overlay
Division St	Hospital reconstruction	Anchor Wy	1000	26	2889	$20	$69,333	3" mill, 3" paveback
Hedges St	3rd St	McLoughlin Blvd	240	24	640	$7	$5,376	2" overlay
Molalla Ave	Beavercreek Rd	19349 Molalla Ave (Post Office)	3000	7	2333	$20	$56,000	spot patching, 3" mill, 3" paveback
South End Road	Pinewood	1160 South End	1900	40	8444	$15	$152,000	2" mill and 3" paveback, curb to curb
Warner Parrott Rd	Linn Ave	End of turn pocket	350		2500	$15	$45,000	2" mill and 3" paveback, curb to curb, loops
Warner Parrott Rd	End of turn pocket	School crosswalk	325	28	1011	$12	$14,560	2" mill and 2" paveback travel lanes only
Total							**$590,063**	

In addition to roadway reconstruction projects, the City intends to allocate $115,000 in preventive maintenance slurry seal projects. At an estimated $24,000 per mile for slurry seal projects, approximately 4.7 miles of residential streets should be treated. The 2009 PMUF Project Map is included as Exhibit B to this report and depicts the contract work planned for 2009.

Conclusion

Given the May 2008 approval of a new utility fee, the summer of 2008 was a productive start to a strong pavement management program. Managing a strong in-house paving program and making preventive maintenance a priority for 10 to 15 year-old residential streets is the goal of City staff and was agreed to by the Transportation Funding Study Citizen Committee. Thus far, all the City's expenses have stayed within the City's budget allocation for street maintenance.

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Appendix A

Preventive Pavement Maintenance Areas (2008)

Type II Slurry Seal @ Unit Cost of $156.97

Street	Beginning	Ending	Area (sq yds)	Tons	Project Cost
Abigail Ct.	Ashley Dr.	End	1289	9.7	$1,522.61
Alexis Ct.	Deer Meadows Rd.	End	1788	13.4	$2,103.40
Anderson Ln.	Toni Ct.	Glenview Ct.	804	6	$941.82
Andrea St.	Meyers Rd.	Ashley Dr.	2465	18.5	$2,903.95
Ashley Dr.	Andrea St.	Deer Meadows Rd.	1708	12.8	$2,009.22
Canterwood Ct.	Spyglass Ln.	End	1353	10.2	$1,601.09
Canyon Ridge Dr.	Conway Dr.	End	709	5.3	$831.94
Castleberry Loop	All		9955	74.7	$11,725.66
Conway Dr.	Caufield Rd.	Canyon Ridge Dr.	3802	57	$8,947.29
Coquille Court	Coquille Dr.	End	412	3.1	$486.61
Coquille Dr.	Glen Oak Rd.	End	4736	35.5	$5,572.44
Current Dr.	Conway Dr.	End	709	5.3	$831.94
Danee Pl.	Pine Pl.	Mahogany Dr.	1417	10.6	$1,663.88
Deer Meadows Rd.	Ashley Dr.	Meyers Rd.	2707	20.3	$3,186.49
Elder Tree Ct.	Filbert Dr.	End	1256	9.4	$1,475.52
Filbert Drive	Pine Pl.	Mahogany Dr.	2336	17.5	$2,746.98
Gerber Woods Dr.	Gaffney Ln.	Meyers Rd.	3057	22.9	$3,594.61
Glendoveer Court	Homestead Dr.	End	1481	11.1	$1,742.37
Glenview Ct.	Gaffney Ln.	13606 Squire Dr.	3028	22.7	$3,563.22
Hazel Grove Dr.	Prop line @ 19427	Prop line at 19392	3125	23.4	$3,673.10
Hilda Court	Coquille Dr.	End	621	4.7	$737.76
Hiltonhead Ct.	Homestead Dr.	End	902	6.8	$1,067.40
Homestead Dr.	Augusta Dr.	S of 20283 Homestead Dr.	5477	41.1	$6,451.47
Lafayette Ave.	South End Rd.	Lawton Rd.	10383	77.9	$12,227.96
Lasic Ct.	Gerber Woods Dr.	End	1066	8	$1,255.76

Street	Beginning	Ending	Area (sq yds)	Tons	Project Cost
Mahogany Court	Mahogany Dr.	End	1643	12.3	$1,930.73
Mahogany Dr.	Prop line @19262	Danee Pl.	998	7.5	$1,177.28
Meriwether Dr.	Homestead Dr.	Persimmon Way	1224	9.2	$1,444.12
Mulberry Ct.	Filbert Dr.	End	1256	9.4	$1,475.52
Oaktree Ave.	All	All	4408	33.1	$5,195.71
Pebble Beach Dr.	Augusta Dr.	Homestead Dr.	902	6.8	$1,067.40
Persimmon Way	Meriwether Dr.	Homestead Dr.	1031	7.7	$1,208.67
Pine Place	Prop line @19223	Partlow Rd.	2078	15.6	$2,448.73
Quinalt Dr.	Glen Oak Dr.	Coquille Dr.	6638	49.8	$7,817.11
Quinalt Ct.	Coquille Dr.	End	708	5.3	$831.94
Saddlehorn Ct.	Andrea St.	End	1829	13.7	$2,150.49
Skellenger Way	All	All	3786	28.4	$4,457.95
Spy Glass Ln.	Canterwood Ct.	Meriwether Dr.	1853	13.9	$2,181.88
Squire Dr.	Meyers Rd.	Glenview Ct.	3626	27.2	$4,269.58
St. Andrews Ct.	Torrey Pines Dr.	End	1286	9.6	$1,506.91
St. Andrews Dr.	Torrey Pines Dr.	Augusta Dr.	2288	17.2	$2,699.88
Toni Ct.	Squire Dr.	End	2702	20.3	$3,186.49
Torrey Pines Ct.	Torrey Pines Dr.	End	1787	13.4	$2,103.40
Torrey Pines Dr.	Glen Oak Rd.	End	4350	32.6	$5,117.22
Turtle Bay Dr.	Coquille Dr.	Torrey Pines Dr.	1353	10.2	$1,601.09
Vincent Dr.	Hazelnut Ave.	Partlow Rd.	6670	50	$7,848.50
Woodglen Way	Pebble Beach Dr.	20283 Woodglen Wy.	2610	19.6	$3,076.61
Woodwind Dr.	Hazel Grove Dr.	Vincent Dr.	2062	15.5	$2,433.04
			123674	956.2	$150,094.71

Average Cost for Slurry Seal Treatment
$24,000 per lane mile

City of Oregon City

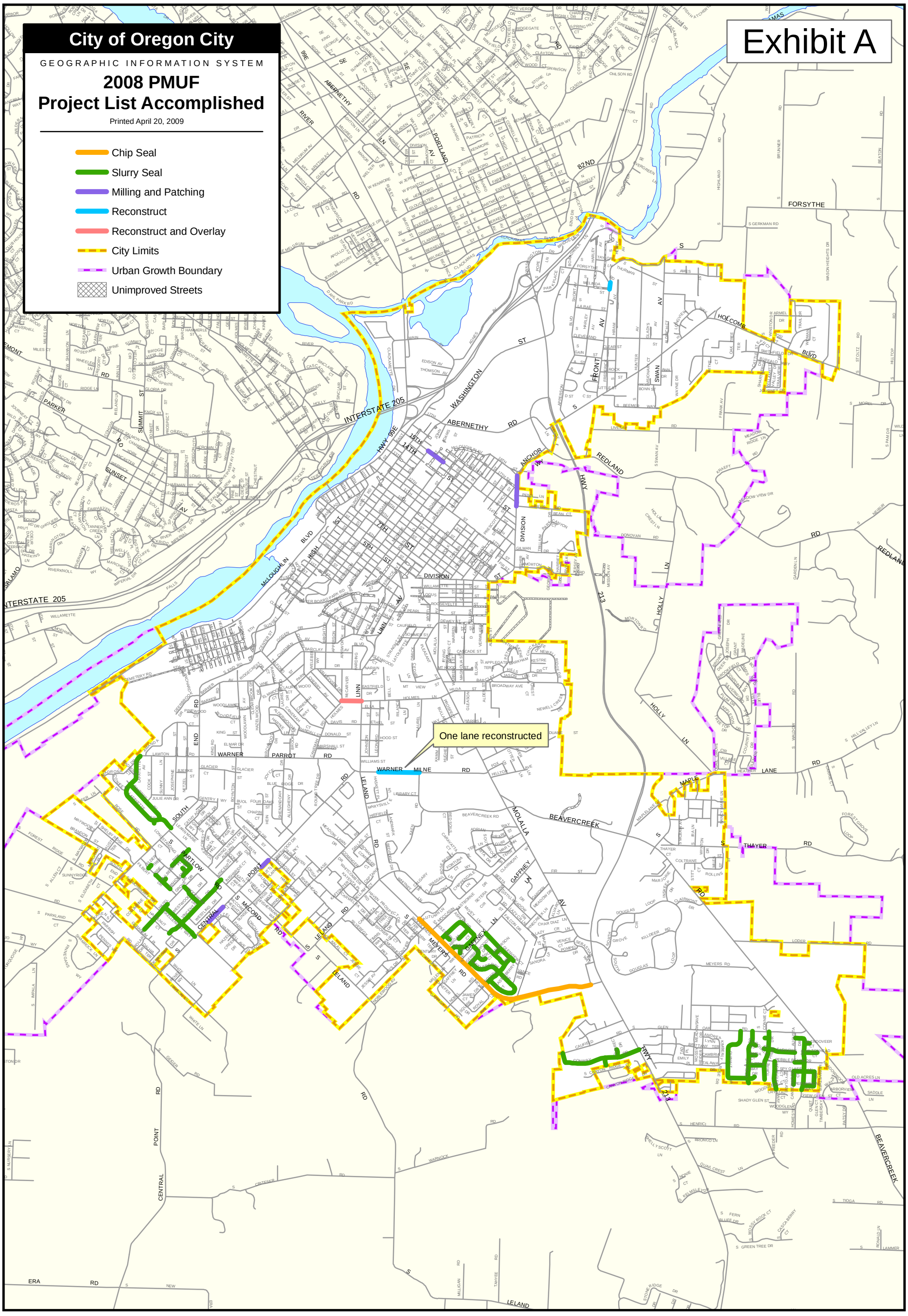
GEOGRAPHIC INFORMATION SYSTEM

2008 PMUF
Project List Accomplished

Printed April 20, 2009

- Chip Seal
- Slurry Seal
- Milling and Patching
- Reconstruct
- Reconstruct and Overlay
- City Limits
- Urban Growth Boundary
- Unimproved Streets

Exhibit A


One lane reconstructed
WARNER MILNE RD
INTERSTATE 205
HWY 99E
HWY 213
MOLALLA
BEAVERCREEK
LELAND
MEYERS
CENTRAL POINT
SOUTH BARTLOW
GAFFNEY LN
REDLAND
HOLLY LN
THAYER RD
FORSYTHE
HOLCOMB BLVD
WASHINGTON ST
ABERNETHY RD
McLOUGHLIN BLVD
DIVISION ST
82ND
ANCHOR WY
LINN AV
PARKER RD
SUNSET AV
SUMMIT ST
FRONT AV
SWAN AV
PORTLAND AV
ABERNETHY RIVER RD
14TH ST
15TH ST
7TH ST
5TH ST
99E
213
ERA RD
BEAVERCREEK
MAPLE LANE
OLD ACRES LN
SADDLE LN
SHADY GLEN ST
WOODGLEN WY
HENRICI RD
BRONCO LN
QUAIL CREST LN
FERN BLUFF DR
MOSSY ROCK CT
CASCA BERRY CT
GREEN TREE DR
TIOGA RD
LAMMER
RONALD LN
WARNOCK RD
CRITESER RD
GEIGER RD
MILLIGAN RD
TAHYEE RD
STONE RIDGE DR
KELMSLEY DR
HOME CT
KELLY SCOTT LN
FREEDER RD
S GERKMAN RD
MASON HEIGHTS DR
BRUNER
HIGHLAND
BEATON
STOLTZ
HILLTOP
S WALDOW
S HILLVALLEY LN
S PAM DR
S MOREL DR
S SWAN AV
S FRANK AV
S MISSOURI AV
S HARRIET AV
S JERSEY AV
S GEORGIA AV
S MORTON RD
S DONOVAN RD
S KRAEFT
S MEADOW VIEW DR
S MEADOW RIDGE LN
S MEIBUR
S GARDEN LN
S MEADOW LN
S WINSTON DR
S ARMEL DR
S TRAIL DR
S WYMAN CT
S SMITHFIELD DR
S BUFFALO WAY
S WILLAMETTE VALLEY DR
S JOURNEY DR
S CATTLE STEP CT
S PAX CT
S WHITE CT
S OAK TREE TER
S LOVEVIEW WAY
S ALDERCREST CT
S HUNTER CT
S MISSOURI CT
S BONN ST
S BEEMER WAY
S LIVESAY RD
S AMES ST
S THURMAN ST
S MELINDA ST
S LA RAE ST
S HIRAM AV
S GLADYS AV
S CLEAR ST
S ROCK ST
S LITTLE ST
S CLEVELAND ST
S GAIN ST
S HARLEY AV
S SHORT AV
S TAYLOR ST
S FORSYTHE ST
S PARK PLACE CT
S BONNEWITZ RD
S PRINCETON ST
S BERKELEY ST
S EVERGREEN LN
S EVERGREEN CT
S HATTON CT
S HEATHER WY
S CASON CT
S OHLSON RD
S CLAYTON WY
S SWANSON
S STONE OAKS CT
S STONEWOOD CT
S CHARDONNAY CT
S SPRING HILL DR
S GREENMANN
S CHRISTEN
S RIDGEWOOD CT
S RIDGEGATE
S MONTICELLO CT
S MONTE VERDE DR
S TREVOR
S WINFIELD CT
S CHARLANN CT
S CASABLANCA CT
S CASCADE CT
S CLAYTON
S CLAYTON CT
S CANYON
S TRILLIUM
S GILMAN
S MORTON
S HARRIET AV
S JERSEY AV
S GEORGIA AV
S MISSOURI AV
S CAUFIELD
S GLEN
S CONNIE CT
S ALANDREA
S LYNN
S BRITTANY TER
S CAMBRIA
S HALAWA
S EMILY PL
S MOSSY
S CONWAY
S CANYON RIDGE
S CRAWFORD RIDGE
S WOODGLEN
S VIEW CREST CT
S QUIET GLEN CT
S TIMBERSKY
S HOMESTEAD
S CANTERBURY
S WOODCREST
S WOODBROOK
S ARBORVIEW
S DAISY DR
S ENDOVEER CT
S ENDOVEER
S ALASKA
S ROSE
S ROSE ARK
S WHEELER LN
S GREGORY
S LUPINE
S SUMMIT PL
S SKYLINE
S WOODSKYLINE
S WOODWINDS
S WOODSPRITE
S GLORIA DR
S ROXBURY DR
S RIDGE LN
S RELAND LN
S COLONY CT
S WHITE SALMON
S CAMBRIDGE
S YORK
S LANCASTER
S WARWICK
S BEACON HILL CT
S BEACON HILL
S JUAN RIDGE
S BEACON CT
S HAMPTON
S CORNWALL
S SUSSEX
S SOUTHCLIFF
S WOODCLIFF
S ROCKRIDGE
S IMPERIAL
S CAPCLIFFE CT
S MANCHESTER
S RIVERKNOLL
S RIVERKNOLL WY
S RIVERKNOLL CT
S WELLINGTON DR
S WELL CT
S HASKINS LN
S CRYSTAL TERRACE
S CHIGLIERI
S FAIRHAVEN
S TANNER CREEK
S BLUFF VIEW DR
S BLUFF VIEW CT
S FALLS VIEW AV
S FALLS VIEW ST
S PRIE ST
S ALDER ST
S ALDER CT
S MAPLE ST
S MAPLE CT
S ALLEN CT
S ELIZABETH
S SUNNYRIDGE
S PARKLAND CT
S PARKLAND
S CLARKE
S PARRISH
S PENNY
S RIVERGEANS
S IMPALA LN
S NURSERY LN
S TONDR
S WHITE LN
S WHITE
S WESTLING DR
S WESTWOOD
S WESTCREST
S WESTCREST CT
S HAZELWOOD
S HAZELWOOD CT
S HAZELWOOD AVE
S CENTRAL CT
S CENTRAL
S CENTRAL WAY
S CENTRAL PL
S CENTRAL PARK
S CENTRAL PARK CT
S CENTRAL PARK DR
S CENTRAL PARK WAY
S CENTRAL POINT RD
S MCCORD RD
S LELAND RD
S LELAND
S LELAND CT
S LELAND PL
S LELAND AV
S JESSIE AV
S NOBLE AV
S NOBLE CT
S MEYERS RD
S MEYERS
S MEYERS CT
S MEYERS WAY
S MEYERS PL
S MEYERS LN
S GAFFNEY LN
S GAFFNEY
S GAFFNEY CT
S GAFFNEY WAY
S GAFFNEY PL
S GAFFNEY AV
S AUTUMN LN
S MOCCASIN
S EASTBORNE
S SETERA CIR
S SETERA
S FALCON DR
S FALCON CT
S PINECREEK LN
S LAZY
S CHAR DIAZ
S VENICE
S POMPEI DR
S SEBASTIAN
S SANDRA
S MOLALLA
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S BEAVERCREEK RD
S ADRIAN WAY
S LAUREL
S WALLEN
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S CARAVATTA LN
S ROSE BERRY
S FORTUNA
S WASSALL
S CLAIRMONT
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S CLAIRMONT DR
S CALGARY
S CHAPENDALE
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S BERTA
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S MEADOW CT
S MEADOW PL
S MEADOW WAY
S MEADOW TER
S MEADOW CIR
S MEADOW LOOP
S MEADOW RIDGE
S MEADOW VIEW
S MEADOW VIEW DR
S MEADOW VIEW CT
S MEADOW VIEW PL
S MEADOW VIEW WAY
S MEADOW VIEW TER
S MEADOW VIEW LOOP
S MEADOW VIEW CIR
S MEADOW VIEW AV
S MEADOW VIEW ST
S MEADOW VIEW RD
S MEADOW VIEW LN

City of Oregon City

GEOGRAPHIC INFORMATION SYSTEM

2009 PMUF
Tentative Project List

Printed April 20, 2009

Exhibit B

- Preventative Maintenance
- Paving and Reconstruction
- City Limits
- Urban Growth Boundary
- Unimproved Streets

Inlaid point repairs only.
Not a major reconstruction project.

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Please recycle with colored office grade paper.

N W E S

0 0.25 0.5 1 Miles

0 1,000 2,000 4,000 6,000 Feet

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OREGON CITY

Plot date: April 20, 2009
Plot name: PMUF - 2009 TENTATIVE Projects Map - 11x17P - 20090420.pdf
Map name: PMUF - 2009 TENTATIVE Projects Map - 11x17P.mxd